

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-26 (canceled)

Claim 27 (new): A chip design file for synthesizing a substrate having polymer probes coupled thereto, comprising:

computer code specifying a plurality of regions on the substrate in which diverse polymer probes are coupled; and

computer code specifying a plurality of regions on the substrate in which polymer probes having the same desired sequence are coupled, wherein the polymer probes having the same desired sequence will bind with a control sequence of monomers but the polymer probes are formed with at least one different monomer addition cycle that adds a same monomer and at least one of the polymer probes does not have the same actual sequence as a result of a different monomer addition cycle from an error in probe synthesis.

Claim 28 (new): The chip design file of claim 27, wherein the plurality of regions are at the center of the substrate.

Claim 29 (new): The chip design file of claim 27, wherein the plurality of regions are in a checkerboard pattern on the substrate.

Claim 30 (new) A chip design file for synthesizing a substrate having nucleic acid probes coupled thereto, comprising:

computer code specifying a plurality of regions on the substrate in which diverse nucleic acid probes are coupled; and

computer code specifying a plurality of regions on the substrate in which nucleic acid probes having the same desired sequence are coupled, wherein the nucleic acid probes having the same desired sequence will bind with a control sequence of nucleotides but the nucleic acid probes are formed with at least one different nucleotide addition cycle that adds a same nucleotide and at least one of the nucleic acid probes does not have the same actual sequence as a result of a different nucleotide addition cycle from an error in probe synthesis.

Claim 31 (new): The chip design file of claim 30, wherein the plurality of regions are at the center of the substrate.

Claim 32 (new): The chip design file of claim 30, wherein the plurality of regions are in a checkerboard pattern on the substrate.